

IN THE CLAIMS

Please amend the claims as follows.

1. (Currently Amended) A method for streaming scalable video including base layer ~~data~~ frames and enhancement layer ~~data~~ frames, comprising the steps of:

transmitting at least a portion of at least one of the base layer ~~data~~ frames for a given time interval ~~within a plurality of time intervals for a single video stream~~;

determining if a loss of bandwidth for the given time interval has occurred ~~during the given interval~~;

selecting a ~~predetermined~~ number of enhancement layer frames to distribute the loss of bandwidth over;

~~calculating a reduced amount of~~ reducing a size of the selected number of enhancement layer ~~data frames to accommodate the loss of bandwidth~~ transmit in the predetermined number of frames;

and

transmitting at least a portion of at least one of the enhancement layer frames for the given time interval, the at least one transmitted enhancement layer frame having been reduced in size ~~the reduced amount of enhancement layer data during the given interval~~.

2. (Currently Amended) The method according to claim 1, further comprising:

transmitting non-enhancement layer data during the given time interval.

3. (Currently Amended) The method according to claim 1, wherein the ~~ealeulating~~ reducing step is performed so that the loss of bandwidth is distributed evenly over the ~~predetermined~~ selected number of enhancement layer frames.

4. (Currently Amended) The method according to claim 1, further comprising the steps of:

determining if bandwidth remains in the given time interval; and

if bandwidth remains in the given time interval, transmitting at least a portion of one or more enhancement layer frames from a second given time interval ~~the reduced amount of enhancement layer data from a second given interval~~ in the given time interval.

5. (Currently Amended) A method for streaming scalable video including base layer data and enhancement layer data, comprising the steps of: ~~The method according to claim 1, further comprising the steps of:~~

transmitting the base layer data for a given interval within a plurality of time intervals for a single video stream;

determining if a loss of bandwidth has occurred during the given interval;

selecting a predetermined number of frames to distribute the loss of bandwidth over;

calculating a reduced amount of enhancement layer data to transmit in the predetermined number of frames;

transmitting the reduced amount of enhancement layer data during the given interval;

determining if the pre-determined number of frames has expired;

determining if any left-over enhancement layer data exists;

selecting a second predetermined number of frames to distribute the left-over enhancement data over;

calculating a second reduced amount of enhancement layer data to transmit in the second predetermined number of frames; and

transmitting the second reduced amount of enhancement layer data in a second given interval.

6. (Currently Amended) The method according to claim 1, wherein the enhancement layer data in the enhancement layer frames has a fine grain scalability structure.

7. (Currently Amended) A method for streaming scalable video including base layer ~~data~~ frames and enhancement layer ~~data~~ frames, comprising the steps of:

transmitting at least a portion of at least one of the base layer ~~data~~ frames for a given time interval ~~within a sequence of time intervals over which the scalable video is streamed;~~

selecting a ~~predetermined~~ number of enhancement layer frames if a loss of bandwidth has occurred ~~[[in]]~~ for the given time interval;

distributing the loss of bandwidth over the ~~predetermined~~ selected number of enhancement layer frames by reducing a size of the selected number of enhancement layer frames ~~to produce a reduced amount of enhancement layer data;~~ and

transmitting at least a portion of at least one of the enhancement layer frames for the given time interval, the at least one transmitted enhancement layer frame having been reduced in size ~~the reduced amount of enhancement layer data in the predetermined number of frames during the given interval.~~

8. (Currently Amended) The method according to claim 7, wherein the distributing step is performed so that the loss of bandwidth is distributed evenly over the ~~predetermined~~ selected number of enhancement layer frames.

9. (Currently Amended) A memory medium including code for streaming scalable video including base layer ~~data~~ frames and enhancement layer ~~data~~ frames, the code comprising:

[[a]] first transmitting code [[to]] for transmitting at least a portion of at least one of the base layer data frames for a given time interval within a series of time intervals over which the scalable video is transmitted;

[[a]] determining code [[to]] for determining [[e,]] ~~during transmission of the scalable video,~~
if a loss of bandwidth has occurred [[in]] for the given time interval;

[[a]] selecting code [[to]] for selecting a predetermined number of enhancement layer frames to distribute the loss of bandwidth over;

[[a]] calculating code [[to]] for calculating [[e]] a reduced size amount of the selected number of enhancement layer data frames to transmit in the predetermined number of frames; and

[[a]] second transmitting code [[to]] for transmitting at least a portion of at least one of the enhancement layer frames for the given time interval, the at least one transmitted enhancement layer frame having been [[the]] reduced in size amount of enhancement layer data in the given interval,

~~wherein the reduced amount of enhancement layer data transmitted during the given interval varies from an amount of enhancement layer data transmitted during other intervals within the series.~~

10. (Currently Amended) An apparatus for streaming scalable video including base layer ~~data~~ frames and enhancement layer ~~data~~ frames, comprising:

a memory which stores executable code; and

a processor which executes the code stored in the memory so as to:

[[(i)]] transmit at least a portion of at least one of the base layer ~~data~~ frames for a given time interval ~~within a plurality of time intervals over which a scalable video stream is transmitted,~~

[[(ii)]] determine if a loss of bandwidth has occurred ~~[[in]]~~ for the given time interval,

[[(iii)]] select a ~~predetermined~~ number of enhancement layer frames within the given time interval over which to distribute the loss of bandwidth,

[[(iv)]] calculate a reduced size amount of the selected number of enhancement layer ~~data frames~~ to transmit in the predetermined number of frames to accommodate the loss of bandwidth, and

[[(v)]] transmit at least a portion of at least one of the enhancement layer frames for the given time interval, the at least one transmitted enhancement layer frame having been reduced in size ~~the reduced amount of enhancement layer data in the given interval.~~

11. (Currently Amended) An apparatus for streaming scalable video including base layer ~~data~~ frames and enhancement layer ~~data~~ frames, comprising:

means for transmitting at least a portion of at least one of the base layer ~~data~~ frames for a given time interval ~~within a plurality of time intervals~~;

means for determining ~~, during the given interval~~, if a loss of bandwidth has occurred ~~[[in]]~~ for the given time interval;

means for selecting a ~~predetermined~~ number of enhancement layer frames to distribute the loss of bandwidth over;

means for ~~calculating a reduced amount of~~ reducing a size of the selected number of enhancement layer ~~data frames~~ frames ~~to transmit in the predetermined number of frames~~ to accommodate the loss of bandwidth; and

means for transmitting at least a portion of at least one of the enhancement layer frames for the given time interval, the at least one transmitted enhancement layer frame having been reduced in size ~~the reduced amount of enhancement layer data during a remainder of the given interval~~.

12. (Currently Amended) The method according to claim 1, wherein the ~~predetermined number of~~ enhancement layer frames over which the loss of bandwidth is distributed comprise ~~[[s]]~~ frames within the given time interval.

13. (Currently Amended) The method according to claim 1, wherein the reducing step ~~of calculating a reduced amount of enhancement layer data to transmit in the predetermined number of frames further~~ comprises:

calculating an amount of enhancement layer data accommodating the loss of bandwidth during the given time interval.

14. (Currently Amended) The method according to claim 1, wherein the step of determining if a loss of bandwidth has occurred ~~[[in]]~~ for the given time interval ~~further~~ comprises:

determining a number of bits during the given time interval consumed by transmission of non-enhancement layer data.

15. (Currently Amended) The method according to claim 1, wherein the step of determining if a loss of bandwidth has occurred ~~[[in]]~~ for the given time interval ~~further~~ comprises:

determining a number of bits during the given time interval lost due to at least one of packet loss, noise, ~~[[or]]~~ and bandwidth variation.

16. (Currently Amended) The method according to claim 1, wherein the reducing step of ~~calculating a reduced amount of enhancement layer data to transmit in the predetermined number of frames further~~ comprises:

calculating a number of lost bandwidth bits to be allocated to each of the ~~predetermined~~ selected number of enhancement layer frames.

17. (Currently Amended) The method according to claim 1, wherein the step of transmitting at least a portion of at least one of the enhancement layer frames ~~the reduced amount of enhancement layer data in the given interval further~~ comprises:

transmitting a first reduced amount of enhancement layer data in first and last frames of the ~~predetermined~~ selected number of enhancement layer frames; and

transmitting a second reduced amount of enhancement layer data different from the first amount in an enhancement layer frame between the first and last enhancement layer frames ~~of the predetermined number of frames~~.

18. (Currently Amended) The method according to claim 1, wherein the ~~steps of~~ ~~determining if a loss of bandwidth has occurred during the given interval, selecting a predetermined number of frames to distribute the loss of bandwidth over, calculating a reduced amount of enhancement layer data to transmit in the predetermined number of frames, and transmitting the reduced amount of enhancement layer data during the given interval~~ determining step, selecting step, reducing step, and second transmitting step cumulatively result in dynamic adaptation of the scalable video stream to temporary reductions in available bandwidth during transmission of a portion of the scalable video stream.

19. (Currently Amended) The method according to claim 1, wherein the step of ~~selecting a predetermined~~ selecting the number of enhancement layer frames to distribute the loss of bandwidth over ~~further~~ comprises:

selecting a predetermined number of remaining frames to be transmitted during the given time interval.

20. (Currently Amended) The method according to claim 1, further comprising:
following transmission of at least one of the enhancement layer frames that have been reduced in size, ~~the reduced amount of enhancement layer data in the predetermined number of frames~~, resuming transmission of ~~a non-reduced amount of enhancement layer data in frames~~ subsequent to the predetermined number of frames that have not been reduced in size.

21. (New) The method of Claim 1, further comprising:
determining if the selected number of enhancement layer frames has expired;
determining if any left-over enhancement layer data exists;
selecting a second number of enhancement layer frames to distribute the left-over enhancement data over;
reducing a size of the selected second number of enhancement layer frames to accommodate the left-over enhancement data; and
transmitting at least one of the second number of enhancement layer frames in a second given time interval.

22. (New) The method of Claim 1, wherein reducing the size of the selected number of enhancement layer frames comprises reducing the size of at least two enhancement layer frames by different amounts.